

In the Claims

Please amend the claims as follows:

1. (Original) A composition comprising:
a macromer prepared by reacting an unsaturated diacid having a carbon-carbon double bond and a saturated diacid; and
a bioactive ceramic grafted to the macromer.
2. (Original) The composition of claim 1 wherein:
the unsaturated diacid having a carbon-carbon double bond is fumaric acid.
3. (Original) The composition of claim 2 wherein:
the saturated diacid is selected from diacids compatible with fumaric acid and poly(propylene fumarate).
4. (Original) The composition of claim 3 wherein:
the saturated diacid is selected from succinic acid, glutaric acid, adipic acid, pimelic acid, suberic acid, azelaic acid, sebacic acid and mixtures thereof.
5. (Original) The composition of claim 2 wherein:
the bioactive ceramic is hydroxyapatite.
6. (Original) The composition of claim 5 wherein:
the hydroxyapatite is grafted to the macromer by way of silicate groups.
7. (Original) The composition of claim 1 wherein:
the macromer is prepared by reacting the unsaturated diacid having a carbon-carbon double bond, the saturated diacid, and a silane coupling agent.
8. (Original) The composition of claim 7 wherein:
the unsaturated diacid having a carbon-carbon double bond is fumaric acid,
the saturated diacid is selected from diacids compatible with fumaric acid and poly(propylene fumarate), and
the silane coupling agent is a dihalodialkylsilane.

9. (Original) The composition of claim 8 wherein:

the saturated diacid is selected from succinic acid, glutaric acid, adipic acid, pimelic acid, suberic acid, azelaic acid, sebacic acid and mixtures thereof.

10. (Original) The composition of claim 7 wherein:

the macromer is prepared by reacting the unsaturated diacid having a carbon-carbon double bond, the saturated diacid, the silane coupling agent, and an ester of the saturated diacid.

11. (Original) The composition of claim 10 wherein:

the saturated diacid is adipic acid,
the silane coupling agent is a dichlorodimethylsilane, and
the ester is a monomethyl ester of adipic acid.

12. (Original) The composition of claim 10 wherein:

the bioactive ceramic comprises hydroxyapatite particles having a particle size of less than 10,000 nanometers.

13. (Original) A composition comprising:

a macromer including silane units, units derived from an unsaturated diacid having a carbon-carbon double bond, and units derived from a saturated diacid; and

a bioactive ceramic grafted to the macromer.

14. (Original) The composition of claim 13 wherein:

the macromer includes silane units, fumarate units, and units derived from a saturated diacid, and
the bioactive ceramic is hydroxyapatite.

15. (Original) The composition of claim 13 wherein:

the macromer includes silane units, fumarate units, and adipate units,
and
the bioactive ceramic is hydroxyapatite.

16. (Original) The composition of claim 13 wherein:

the bioactive ceramic is hydroxyapatite.

17. (Original) The composition of claim 16 wherein:
the hydroxyapatite is grafted to the macromer by way of silicate groups.

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (New) A biodegradable composite comprising:
(a) a polymeric matrix; and
(b) the composition of claim 1 crosslinked to the matrix.

27. (New) The composite of claim 26 wherein:
the matrix has a carbon-carbon double bond.

28. (New) The composite of claim 27 wherein:
the matrix comprises poly(propylene fumarate).

29. (New) The composite of claim 26 wherein:
the composite is suitable as a scaffold for tissue regeneration.

30. (New) The composite of claim 29 wherein:
the tissue is bone.

31. (New) A crosslinkable, biodegradable material comprising:

a polymer having a carbon-carbon double bond;

the composition of claim 1, and

a crosslinking agent for crosslinking the polymer and the composition.

32. (New) The material of claim 31 wherein:

the polymer comprises poly(propylene fumarate).

33. (New) The material of claim 32 wherein:

the crosslinking agent is a free radical initiator.